

What is claimed is:

1. A discharging apparatus for a liquid crystal display including a plurality of liquid crystal pixel cells, each of the liquid crystal cells being arranged at an intersection between one of a plurality of gate lines and one of a plurality of data lines, and switching devices for driving the liquid crystal cells in response to a signal from each gate line, the discharging apparatus comprising:

a first gate voltage supply line;

a second gate voltage supply line;

a power supply line;

gate driver circuitry for selectively applying to the gate lines first and second gate voltages supplied from the first and second gate voltage supply lines, respectively; and

a discharge circuit for sensing a power-off condition of the power supply line to short-circuit the first gate voltage supply line and the second gate voltage supply line when the power-off condition is sensed, thereby discharging voltages on the gate lines.

2. The discharging apparatus according to claim 1, wherein the first gate voltage is a positive gate high voltage, and the second gate voltage is a gate low voltage, and the gate low voltage is negative relative the positive gate high voltage.

3. The discharging apparatus according to claim 2, wherein said discharge circuit includes:

power-off sensing circuitry for sensing the power-off condition of the power supply line;
and

a switching device for short-circuiting the first and second gate voltage supply lines upon power-off in response to a control signal from the power-off sensing circuitry.

4. The discharging apparatus according to claim 3, wherein said discharge circuit includes:

a capacitor for charging to a desired voltage when a power voltage is being applied from the power supply line and discharging the charged desired voltage upon the power-off condition;
and

a switching control device for controlling the switching device in response to the desired

voltage discharged from the capacitor.

5. The discharging apparatus according to claim 4, wherein the desired voltage charged in the capacitor comprises a voltage difference between the gate high voltage and the power voltage, and the capacitor discharges the desired voltage upon the power-off condition.

6. The discharging apparatus according to claim 4, wherein said switching device is a NPN-type transistor, and said switching control device is a PNP-type transistor.

7. The discharging apparatus according to claim 1, wherein the discharge circuit is provided on a printed circuit board and connected to the gate driver circuitry.

FIG. 10